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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,632	02/06/2004	Larry S. Eoff	HES 2002-IP-007002UIP1	8359
28857	7590	11/01/2004	EXAMINER	
CRAIG W. RODDY HALLIBURTON ENERGY SERVICES P.O. BOX 1431 DUNCAN, OK 73536-0440			MITCHELL, KATHERINE W	
			ART UNIT	PAPER NUMBER
			3677	

DATE MAILED: 11/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/773,632	Applicant(s) EOFF ET AL	
	Examiner Katherine W Mitchell	Art Unit 3677	

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 8/23/04
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 14-20 and 27-33 is/are allowed.
- 6) ☒ Claim(s) 1-13 and 21-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                                                       |                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                           | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/6/8/23/3/01/04</u> . | 6) <input type="checkbox"/> Other: _____                                                |

**DETAILED ACTION**

***Election/Restrictions***

1. Based on the claims submitted and the fact that USP 6715553 and ser# 10/714134 have previously been searched and prepared, examiner is not restricting the method and composition claims at present.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 3 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 3, the phrase "preferably" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 5 is rejected because there is no formula IV. Since neither formula IVa, IVb, or IVc contains all the limitations claimed, and any or all can make up a fourth structural unit, examiner is unable to accurately examine the claim on its merits.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-9 and 13 and 21-22 and 26 are rejected under 35 U.S.C. 102(a) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Spindler, WO 03/085013, printed 10/16/2003 with priority to 4/10/2002. All page numbers of Spindler refer to the English translation provided with this action. Examiner notes that applicant has filed a CIP, but the new matter in the pending application (formula IVc, etc.) does not get the advantage of the priority date.

Re claims 1 and 21: Spindler teaches in page 3, line 14-16 that the formulas exactly as (the composition) claimed can be used for water retention agents, thickeners, or anti-segregation agents, without increasing hardening or setting times, and page 13, first full paragraph teaches the use with cement slurries. Page 2 last 2 lines - page 3 line 1 discloses the use of such agents in earth work to produce self-supporting liquids in excavations such as underground shafts, wells, caissons, and curtain walls:

While examiner believes the teaching of using water retention agents, thickeners, or anti-segregation agents, added to cement slurries or clay suspensions (page 13, 1<sup>st</sup> full paragraph) without increasing hardening or setting times, useful in earth work in

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excavations, underground shafts and wells inherently teaches the use with hydraulic cement, if it is held this is not inherent, it would have been obvious to one of ordinary skill in the art, having the teachings of Schindler before him at the time the invention was made, to modify Schindler to include the use with specific cements including hydraulic cements, in order to use the agents with commonly accepted components in the earthworking industry. One would have been motivated to make such a combination because the properties are well suited to the needs of cementing a subterranean zone penetrated by a well bore and earth work, including wells, caissons, and shafts are analogous efforts, and hydraulic cements are commonly used as the cements in earth boring and subterranean stabilization.

Re claim 2: The exact formulas for R1 and R2 are taught in claim 2 of Schindler.

Re claim 3: The exact formulas for M in formulas 1a, 1b, IIa, and IIb are taught in claim 3 of Schindler.

Re claim 4: Schindler teaches "y" is preferably 3 to 5 in formula III on page 5, 5<sup>th</sup> text line.

Re claim 5: Although as discussed above, claim 5 is unclear, examiner notes that pages 5 (structures/formulas)-6 (text) teach the limitations in some combination, although no combination has been positively claimed since no valid formula has been claimed.

Re claim 6: Page 7 paragraph 5 teaches the specific ranges of percents of the monomers of each formula.

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Re claims 7-8: page 7 paragraph 6 teaches the molecular weight ranges claimed.

Re claim 9: Page 11 6<sup>th</sup> full paragraph and the examples teach the range of the additive as a weight percent of the cement as claimed.

Re claims 13 and 26: The examples teach the percentage water claimed.

Re claim 22: additive as 0.1 to 2.0 wt % of the cement is taught in claim 17 of Schindler, (0.05 to 5 wt % of the dry weight of the building material).

7. Claims 10-12 and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Udarbe et al. USP 6136935. As discussed above, Spindler teaches all the elements except specific cement and water components. Udarbe teaches a method and composition for controlling fluid losses in underground zones which use specific cements and water.

Re claims 10-11 and 23-24: Cement including Portland, pozzolan, gypsum, silica and/or aluminous cements are taught by Udarbe in col 10 lines 35-35. Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Spindler and Udarbe before him at the time the invention was made, to modify Spindler as taught by Udarbe to include Portland, pozzolan, gypsum, silica and/or aluminous cements of Udarbe, in order to obtain an additive for commonly used hydraulic cements, commonly used and well-known in the treatment of subterranean zones. One would have been motivated to make such a combination because a large existing market with customers familiar with the product in similar usages would have been obtained.

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Re claims 12 and 25: Using plain or salt water is taught as suitable by Udarbe in col 10 lines 46-52. One would use whatever water was easily and cheaply available since either would work.

***Allowable Subject Matter and Reasons for Allowability***

8. Claims 14-20 and 27-33 are allowed. The prior art does not teach the exact proportions of the specific compounds claimed. Examiner notes that the specific percentages – 77.9, 8, 11, 3, and 0.1 – add up to 100% so no additional components or variations are possible. Further, the parent and divisional applications are broader, so double patenting is not an issue.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine W Mitchell whose telephone number is 703-305-6713. The examiner can normally be reached on Mon - Thurs 10 AM - 8 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 703-306-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Katherine W Mitchell  
Patent Examiner  
Art Unit 3677

Kwm  
10/28/2004